



Province of the  
**EASTERN CAPE**  
EDUCATION

**DIRECTORATE SENIOR CURRICULUM MANAGEMENT (SEN-FET)**

**HOME SCHOOLING SELF-STUDY WORKSHEET ANSWER SHEET**

<b>SUBJECT</b>	COMPUTER APPLICATIONS TECHNOLOGY	<b>GRADE</b>	12	<b>DATE</b>	08/04/20
<b>TOPIC</b>	Hardware: Input Devices	<b>TERM 1 REVISION</b>	✓	<b>TERM 2 CONTENT</b>	(Please tick)

1. Multiple choice

- a. Which of the following components can be used as an integration medium?

*Answer: B*

- b. Carpal Tunnel Syndrome is caused by too much pressure on the wrists. Which of the following devices is most likely to give you CTS?

*Answer: C*

- c. Which of the following is a limitation of voice recognition?

*Answer: B*

- d. Which of the following is an advantage of the computer mouse?

*Answer: D*

2. Matching items

Choose a term/concept from COLUMN B that matches the description in COLUMN A. Write only the letter next to the question number.

2.1 C

2.2 A

2.3 H

2.4 F

2.5 D

3. True or false statements

Indicate whether the following statements are TRUE or FALSE. Write 'true' or 'false' next to the question number. Correct the statement if it is FALSE. Change the underlined word(s) to make the statement TRUE. You may not simply use the word 'NOT' to change the statement. NO mark will be awarded if only FALSE is written down.

- a. It is an advantage for keyboards that disabled users might find it difficult to enter information.

*Answer: False - a disadvantage*

- b. Your wrist must be in a slanted position to use the keyboard correctly.

*Answer: False - straight position*

- c. An optical mouse is very expensive.

*Answer: False - not very expensive OR very cheap*

- d. The user must be computer literate to make full use of a digital camera.

*Answer: True*

- e. A touch screen is an input and an output device

*Answer: True*

4. Answer the following questions:

a. What is the difference between a touch screen and a touch pad?

*Answer: Touch screen like a smartphone is an input and output device and a touch pad is situated on a laptop and is an input device.*

b. What are two advantages and limitations of scanners?

*Answer: Any two of the following:*

<i>Advantages</i>	<i>Limitations</i>
<i>Images and documents can be stored and printed later.</i>	<i>The quality of the scanned document is limited by the resolution of the scanner as well as the quality of the original document.</i>
<i>Makes it possible for the user to edit stored documents.</i>	<i>Unable to scan 3D objects.</i>
<i>Document quality might be improved by using special editing software.</i>	<i>Prone to wear and tear, and therefore prone to technical difficulties.</i>

c. How do integrated systems work?

*Answer: Integrated systems have different components and systems in one device that fills a function that each individual component could not do. How the integrated system works depends on the function or purpose of the integrating systems, but it is mostly to increase productivity and efficiency.*

d. How do wireless input devices work and what are two advantages of using them?

*Answer: Wireless keyboards and mice use a receiver that is plugged into the USB slot on a computer. The input device then communicates with the computer, using wireless transfer of data. Any two of the following: Saves space as there are no wires. Aesthetically better than wired input devices. Allows flexibility of use as you can make use of the device at a distance.*

e. Which type of user will benefit the least from wireless inputs and explain why?

*Answer: Power users, the movements are slower with wireless inputs and this delay is not wanted during gaming.*

5. Read through and understand the following scenarios to provide an appropriate solution:

a. Since your father is technologically impaired, he came to you to explain to him what he must know before buying a webcam for work. List the advantages and limitations of a webcam.

*Answer: Student's own answer, but the most likely answer is Skype.*

<i>Advantages</i>	<i>Limitations</i>
<i>The camera can be left on constantly and activated when the user requires.</i>	<i>Most webcams produce poor quality videos.</i>
<i>Allows people to have face to face conversations without the need to travel.</i>	<i>The webcam needs to be connected to the computer.</i>
<i>Can take pictures without the need of film.</i>	<i>Feed when video chatting can be choppy or pixelated.</i>
<i>Low cost and high convenience.</i>	<i>Webcam-based calls run a greater risk of technological failure due to dropped connections or incompatibility.</i>
<i>Compatible with various platforms such as Windows, Mac, Linux and even some gaming systems like the Sony PlayStation.</i>	<i>Hackers can activate your webcam and watch you without you knowing it. Security information can also be stolen.</i>

- b. Your parents decide to buy an entry-level computer with internet so that your grandmother can order her clothes and food online, and have them delivered. Explain to your grandmother how to use the keyboard and mouse ergonomically so that she does not suffer from pains. Give her at least seven tips.

*Answer: Any seven of the following tips:*

- *Make sure that your keyboard is at the correct height, just above the level of your lap, so that your arms tilt downward when typing. In many cases this may mean that you should get an adjustable keyboard tray so that your keyboard can be tilted down and away from you.*
- *Keep your wrists in the neutral (straight) position. If you have to bend your wrist up and down the whole time, it compresses structures in your wrists, causing pain and injuries such as carpal tunnel syndrome and tendonitis.*
- *Adjust the height of your chair to make sure that your elbows are at a slight open 90-degree angle or greater. Elbows that are bent at less than 90 degrees can cause arm and wrist pain.*
- *Keep your shoulders relaxed and your elbows at your side. This means that your shoulders should not be raised, and your arms should be roughly parallel to the floor.*
- *Keep a light touch on your keys when typing as the tendons of your fingers are connected near your elbow. Hitting the keys too hard may cause inflammation of the elbows.*
- *Do not use arm or wrist rests while you are typing.*
- *Align your body to the keyboard, depending on whether you use the letters or the numbers the most. If you use the letters the most, centre the keyboard so that the letter B is about in line with your belly button. However, if you use your numeric keypad (or numpad) the most, move the keyboard more to the left.*
- *Use keyboard shortcuts or macros for common, repetitive tasks to prevent overusing your hands and wrists.*
- *As computer mice come in different sizes and shapes, make sure that the mouse fits comfortably in your hand and is easy to use. Rather use a symmetrical shaped mouse than a curved one.*
- *Do not grip the mouse hard. Hold it loosely.*
- *Make sure that you are holding your mouse correctly, i.e. rest your hand over the mouse and place your index finger on the left button of the mouse. You can rest your thumb and pinkie on the sides of the mouse.*
- *Keep your mouse at the correct height and distance from your body, close to the keyboard.*
- *Make sure that your elbow is bent and close to your body.*
- *Use your whole forearm, not only your hand, to move the mouse. If you move only your hand, it will put strain on your wrist.*
- *Keep your wrist straight. This will prevent your wrist from bending in an unnatural position.*
- *Do not use a wrist rest, as that doubles the pressure inside the carpal tunnel.*
- *Do not click too hard, but rather use a soft touch to manipulate the mouse.*